

COMMERCIAL ITEM DESCRIPTION
SPECIFICATION SHEET

HOLDERS, ELECTRICAL CARD, WEDGE RETAINERS, 3 PIECE,
SCREW ACTUATED DRIVE, .375 X .375 INCH BODY SIZE, WITH SCREW RETENTION

The General Services Administration has authorized the use of this
commercial item description (CID) for all federal agencies.

The complete requirements for procuring electrical card holders described herein shall consist of this document and the latest issue in effect of A-A-59590.

SCOPE. This CID specification sheet covers 3 piece card holders that use screw actuated wedges to hold circuit card assemblies into their installed positions in heat sinking devices (cold plates, heat exchanger) or other applications. Card holders covered by this CID are intended to provide 60g/6ms resistance to shock, withstand 25 G-rms of vibration and provide 1 to 3 degrees C/W/inch thermal resistance between the circuit card assemblies and the heat sink surfaces. The screw retention feature is intended to prevent unintentional disassembly of the card holder. Items covered by this CID specification sheet are intended for commercial/industrial applications.

CLASSIFICATION. This CID specification sheet uses a classification system which is included in the Part Identification Number (PIN) as shown in the following example (see notes).

AA59590	/15	C, B, H	N, J, T, V, K, R, S	**	W, D, E
CID number	Applicable CID sheet	Finish	Mounting	Length	Options

SALIENT CHARACTERISTICS.

Performance. Card holders shall hold the circuit card firmly in place providing high resistance to shock and vibration while providing maximum thermal transfer.

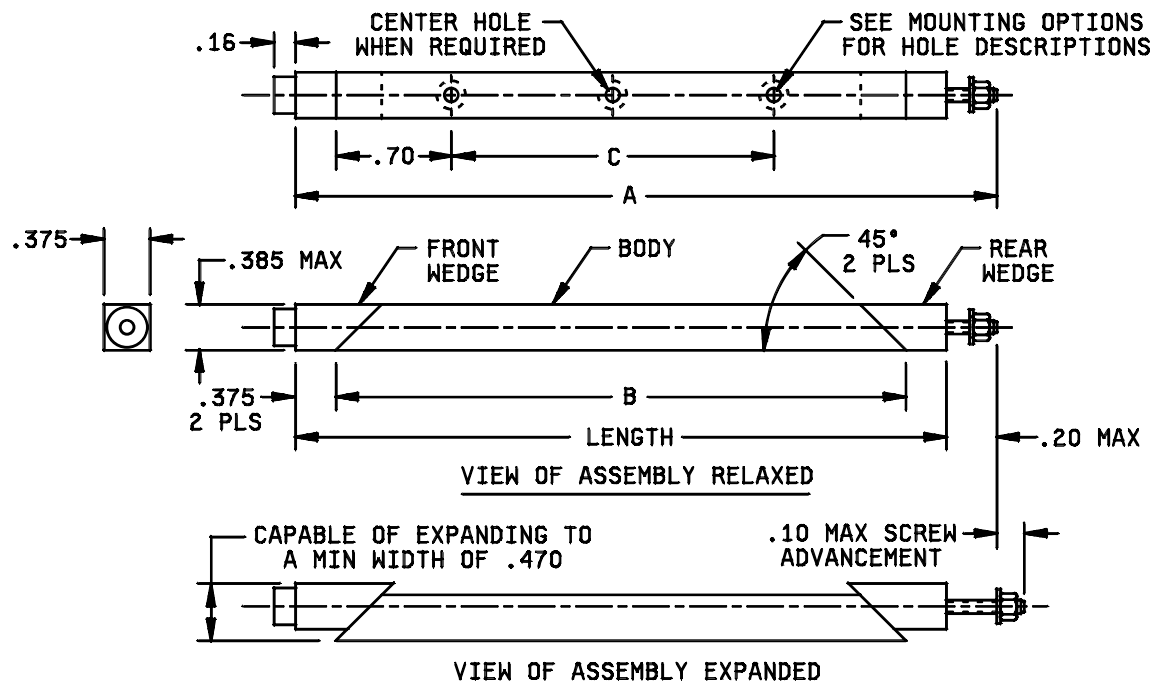
Interface and physical dimensions. The card holders supplied to this CID specification sheet shall be as specified herein and the general CID.

Expanded and relaxed dimensions. Expanded and relaxed dimensions shall be as specified in figure 1.

Mounting options. The mounting options shall be as specified in A-A-59590.

Mounting holes (when required). Two mounting holes are required on card holders less than 6.00 inches (152.4 mm) in length. Three mounting holes are required on card holders 6.00 inches or greater in length. The third mounting hole shall be centered on the mounting body. See table I and figure 1 for mounting hole spacing requirements.

Screw retention (locknut). The screw retention feature intended to prevent unintentional disassembly of the card holder shall be as specified in figure 2. The locknut shall be fabricated of a corrosion resistant material.



Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.10	2.5	.16	4.1	.20	5.1	.375	9.53	.385	9.78	.470	11.94

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerances are $\pm .02$ (0.51 mm), for 2 places and $\pm .010$ (0.25 mm), for 3 places.

FIGURE 1. Relaxed and expanded dimensions.

TABLE I. Assembly dimensions.

PIN length designator	Dimension "LENGTH" $\pm .02$ (0.5)	Dimension "A" (maximum)		Dimension "B" $\pm .03$ (0.8)	Dimension "C" $\pm .005$ (0.13)
		Without options "W" or "D"	With options "W" or "D"		
28	2.8 (71)	3.17 (80.5)	3.25 (82.6)	2.05 (52.1)	.65 (16.5)
33	3.3 (76)	3.67 (93.2)	3.75 (95.3)	2.55 (64.8)	1.15 (29.2)
38	3.8 (97)	4.17 (105.9)	4.25 (108.0)	3.05 (77.5)	1.65 (41.9)
43	4.3 (102)	4.67 (118.6)	4.75 (120.7)	3.55 (90.2)	2.15 (54.6)
48	4.8 (122)	5.17 (131.3)	5.25 (133.4)	4.05 (102.9)	2.65 (67.3)
53	5.3 (135)	5.67 (144.0)	5.75 (146.1)	4.55 (115.6)	3.15 (80.0)
58	5.8 (147)	6.17 (156.7)	6.25 (158.8)	5.05 (128.3)	3.65 (92.7)

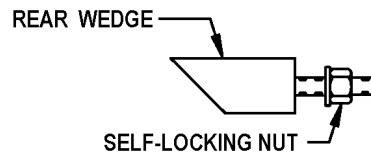


FIGURE 2. Screw retaining self-locking nut (corrosion resistant) details.

Options. Card holders can have the following options. Card holders not requiring one of the following options shall leave the options position in the PIN blank.

Lockwasher and flat washer (see figure 3). A lockwasher and flat washer located under the screw head will provide for additional resistance to loosening from shock and vibration. Card holders requiring a lockwasher and flat washer option shall include a suffix "W" in the PIN (see classification and notes).

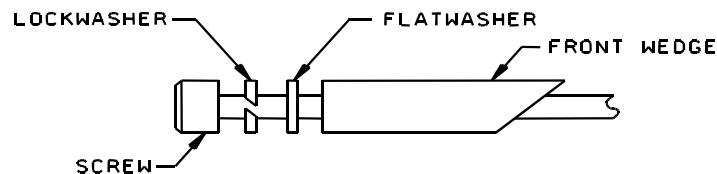


FIGURE 3. Lockwasher and flat washer details.

Screw self-locking element (see figure 4). The use of a screw self-locking element will provide prevailing torque for resistance to loosening from shock vibration. Card holders requiring a screw self-locking element shall include a suffix "E" in the PIN (see classification and notes).

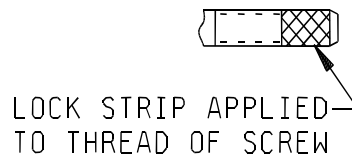


FIGURE 4. Screw self-locking element details.

Lockwasher, flat washer, and screw self-locking element. Card holders requiring a lockwasher, flat washer, and screw self-locking element option shall include a suffix "D" in the PIN (see classification and notes).

NOTES.

PIN. The PIN should be used for Government purposes to buy commercial products to this CID specification sheet. See the classification section for PIN format example.

Commercial products. As part of the market analysis and research effort, this CID specification sheet was coordinated with the following manufacturers of commercial products. At the time of CID specification sheet preparation and coordination, these manufacturers were known to have commercial products that would meet the requirements of this CID specification sheet. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict procurement to only the manufacturers shown.)

<u>Manufacturer CAGE</u>	<u>Manufacturer name and address</u>	<u>Manufacturer contact information</u>
18915	APW Electronic Solutions 14100 Danielson Street Poway, CA 92064-6898	Tel: (858) 679-4550 Toll Free: (800) 854-7086 Fax: (858) 679-4555 E-mail: sales.electronicsolutions@apw.com URL: www.apw.com
52094	Calmark Corporation 4915 Walnut Grove Avenue San Gabriel, CA 91776-2099	Tel: (626) 287-0451 Fax: (626) 287-7350 E-mail: sales@calmark.com URL: www.calmark.com

Part number supersession data. This CID specification sheet part numbers supersedes the following manufacturer's part numbers as shown. This information is being provided to assist in reducing proliferation in the Government inventory system.

TABLE II. Commercial P/N supersession data. 1/

PIN designator AA59590/15	Vendor similar designator or type part number 2/ CAGE 18915	Vendor similar designator or type part number 2/ CAGE 52094
CJ28	44-6-LN	250CR2.80HR
CN28	44-6-LN-A	250CR2.80R
CT28	44-6-LN-T	250CR2.80T0R
CV28	44-6-LN-S	250CR2.80T2R
CJ28E	44-6-LN-L	250CR2.80HLR
CN28E	44-6-LN-A-L	250CR2.80LR
CT28E	44-6-LN-T-L	250CR2.80T0LR
CV28E	44-6-LN-S-L	250CR2.80T2LR
CJ28W	44-6-LF-LN	W250CR2.80HR
CN28W	44-6-LF-LN-A	W250CR2.80R
CT28W	44-6-LF-LN-T	W250CR2.80T0R
CV28W	44-6-LF-LN-S	W250CR2.80T2R
CJ28D	44-6-LF-LN-L	W250CR2.80HLR
CN28D	44-6-LF-LN-A-L	W250CR2.80LR
CT28D	44-6-LF-LN-T-L	W250CR2.80T0LR
CV28D	44-6-LF-LN-S-L	W250CR2.80T2LR

See footnotes at end of table.

TABLE II. Commercial P/N supersession data. 1/ – Continued.

PIN designator AA59590/15	Vendor similar designator or type part number 2/ CAGE 18915	Vendor similar designator or type part number 2/ CAGE 52094
BJ28	44-6-B-LN	A250CR2.80HR
BN28	44-6-B-LN-A	A250CR2.80R
BT28	44-6-B-LN-T	A250CR2.80T0R
BV28	44-6-B-LN-S	A250CR2.80T2R
BJ28E	44-6-B-LN-L	A250CR2.80HLR
BN28E	44-6-B-LN-A-L	A250RC2.80LR
BT28E	44-6-B-LN-T-L	A250CR2.80T0LR
BV28E	44-6-B-LN-S-L	A250CR2.80T2LR
BJ28W	44-6-B-LF-LN	WA250CR2.80HR
BN28W	44-6-B-LF-LN-A	WA250CR2.80R
BT28W	44-6-B-LF-LN-T	WA250CR2.80T0R
BV28W	44-6-B-LF-LN-S	WA250CR2.80T2R
BJ28D	44-6-B-LF-LN-L	WA250CR2.80HLR
BN28D	44-6-B-LF-LN-AL	WA250CR2.80LR
BT28D	44-6-B-LF-LN-TL	WA250CR2.80T0LR
BV28D	44-6-B-LF-LN-SL	WA250CR2.80T2LR
HJ28	44-6-B3-LN	HA250CR2.80HR
HN28	44-6-B3-LN-A	HA250CR2.80R
HT28	44-6-B3-LN-T	HA250CR2.80T0R
HV28	44-6-B3-LN-S	HA250CR2.80T2R
HJ28E	44-6-B3-LN-L	HA250CR2.80HLR
HN28E	44-6-B3-LN-A-L	HA250CR2.80LR
HT28E	44-6-B3-LN-T-L	HA250CR2.80T0LR
HV28E	44-6-B3-LN-S-L	HA250CR2.80T2LR
HJ28W	44-6-B3-LF-LN	WHA250CR2.80HR
HN28W	44-6-B3-LF-LN-A	WHA250CR2.80R
HT28W	44-6-B3-LF-LN-T	WHA250CR2.80T0R
HV28W	44-6-B3-LF-LN-S	WHA250CR2.80T2R
HJ28D	44-6-B3-LF-LN-L	WHA250CR2.80HLR
HN28D	44-6-B3-LF-LN-AL	WHA250CR2.80LR
HT28D	44-6-B3-LF-LN-TL	WHA250CR2.80T0LR
HV28D	44-6-B3-LF-LN-SL	WHA250CR2.80T2LR

1/ CID PINs listed only with length designator "28".

2/ The manufacturer's part number shall not be used for procurement to the requirements of this CID specification sheet. At the time of preparation of this CID specification sheet, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements, see the marking paragraph of the basic CID.

TABLE III. Example of PIN with available length designators.

PIN designator AA59590/15	Vendor similar designator or type part number <u>1/</u> CAGE 18915	PIN designator AA59590/15	Vendor similar designator or type part number <u>1/</u> CAGE 52094
CJ28	44-6-LN	CJ28	250CR2.80HR
CJ33	44-7-LN	CJ33	250CR3.30HR
CJ38	44-8-LN	CJ38	250CR3.80HR
CJ43	44-9-LN	CJ43	250CR4.30HR
CJ48	44-10-LN	CJ48	250CR4.80HR
CJ53	44-1002-5.30-LN	CJ53	250CR5.30HR
CK58	44-12-LN	CJ58	250CR5.80HR

1/ The manufacturer's part number shall not be used for procurement to the requirements of this CID specification sheet. At the time of preparation of this CID specification sheet, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements, see the marking paragraph of the basic CID.

MILITARY INTERESTS:

Custodians:
 Army – CR
 Navy – EC
 Air Force – 11
 DLA – CC

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – 7FXE
 Preparing Activity
 DLA – CC
 Project 5998-0114